



JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/00727

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : E04C 2/34, F16B 13/04

US CL : 52/793.1, 745.21; 411/34, 428/116

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 52/126.5, 364, 793.1, 787.1, 745.21; 411/34, 43, 311, 546; 428/116

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3,443,473 A (TRITT) 13 May 1969 (13.05.1969). See entire document.	1-15
A	US 3,526,072 A (CAMPBELL) 01 September 1970 (01.09.1970) See entire document	1, 8, 14-15
Y	US 6,298,633 A (McCORKLE ET AL.) 09 October 2001 (09.10.2001). See entire document.	1, 8, 14
Y	US 6,224,309 A (YAMAMOTO) 01 May 2001 (01.05.2001). See entire document	1-15
Y	US 4,557,100 A (GORGES) 10 December 1985 (10.12.1985). See entire document.	1, 8, 14
Y	US 4,324,517 A (DEY) 13 April 18982 (10.04.1982). See entire document.	5-6, 11-12

☐ Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

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20 August 2004 (20.08.2004)

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